

F. R. Fosberg Field notebook

Hoof stor Blate bas with allow 20.05 (90t. 14, 25 2 . Jen. 25, 17 3) (L991) ----- 49403) ENTER (min more) (12 to many (who must be a Adamana and Anna and Anna Employer St. THE REAL PROPERTY. Speciment officersel 2,-It was as assisted ****************** Mill Marianasanasanasan TE'S TAIL There Was Free Land Commence of the Comm Upsations ochlacket 53-55 - 3507- 47237 E FEB - 21 EUX 57433) Common of the A STORY OF SELECT THE ME

Collection and Field Note Book

No. 66

(Oct. 14, 1962 - Jan. 25, 1963)

(43245 ---- 43403)

			Pages		
Mexico	• • • • • •	• • •	1-5		
(from air)			-		
Guatemala		• • •	6 - 9		
(from air)					
El Salvador		• • •	10		
(from air)					
Nicaragua		• • •	10		
(from air)					
Costa Rica		• •	11-31	•	
	-1	<i>,,</i> , ,		4278	8
Specimens collected	24-31	432	45	7320	
Panama	• • • • • •	• •	30-34	-	
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	• • • • • •	•	34-39	,	
(from air)			1-		
Ecuador	• • • • • •	• •	39-41	-	
			1 - 1 -	_	
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11 11			100-	_	
Brazil	• • • • • •	• •	48-87	7	
	0 (-		100	,,,,,,	- n
Specimens collected(58-65	432	287-	433	コん
Sao Paulo (68-73	433	33 -	4330	67
	01 0	1/7-	10	422	90
Guanabara	84-87	433	68-	793	,,,

Virginia	
Fairfax County Specimens collected	90 - 97 <i>43391 - 43397</i> 90 - 91
Stone House, w. of Bull Run	98-99
Wildcat Mt. Preserve	98-99
Fairfax County Culpepper-Sleepy Hol	.108-109 low
Maryland	110-111
Worcester County Specimens collected	100-107 <i>43398</i> 106-107
Prince Georges County	100
South River-Tarnan Br.	110
Ivy Neck	111
France	112-114
Fontainebleau Specimens collected	d 112-113 <i>43399- 43403</i>

Field notebook

Those plants collected by Dr. Fosberg at "Alta da Serra" have the following data: Brazil, State of São Paulo, Município de Riberão

Pires, nature reserve of "Alto da Serra", about 1/2 to 1 km west of

city of PARANAPIACABA. Subtropical, montane low rainforest or scrub.

Those plants collected in the cerrado at Emas...the following data;

Brazil, State of São Paulo, Município de Piracicaba, Emas. Cerrado vegetation,

open to semi-closed scrub or scrub forest. 27 Oct. 1962.

> to 43327

George Eiten

P. 64 on

Morgheord

elle follolis dom

F. R. Fosberg Field notebooks #66 begin 43245 end 43403



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a real thing - two parally sinuous transfer affect postable a mile affait postable a mile wide, the mostly side lover, sloping evenly downward from a lumpy cumulus an south to a smooth wifty strate-cumulus or stratus to mostly this simply fading out.

another borer piego

Must be either from a morth wind sliding up over an air mars or a south wind wind the Commer 11:05 a. Get. at. & Mrs.

. .

2

no. of mob. in francly settled area, generally fretted are some broug! thinly vegetated sand. hills (?) or elevated rang flats. Into there, from noth, and somewhat also from south, are what look like systems of tedal channels, filled with words.

photos of alacram Progeso coast, sot risal plantation s. of merida -a spotshwork of sisa patches, abandoned sisal patches, soul and sout from. Deyons the main plantation area, a few miles south the large such open scrub frest, and scrub frest areas are spotted with small clearings. The serul and frety are a patchurch of regrowth of various ages. Broad strips of sisal plantation extend south along bughways. and are scattered along a new way running Transverse Wit course.

South of this cultivated patches are abundant. active and just abandones ones occupying perhaps 10-20% of area, as fran as friest range of low hills. South of this there are some patches and locally greenty of regrown abandoned nos, but mainly frest over large arean; even along the road parallel to course on left Some fortarear are quite heavely cleared me of hills also some local savanna areas, with megular morain of worded patches and grass. is rather heavily cleaned for stiffing agriculture. lesso but still beavily Beyond this large areas of fair transferred with only fraint angular pattern atternating with area that are mostly cleared, inequilar then mostly unbroker brest with no visible evidence

That it ever has been cleared. This is mostly flat but eveally gently billy. Jomin out then I new road transverse to course - pub Bolonchenticul nd. but no cleanings along it. South of This several minutes peveral faint traces wandering eastward through the dense fret, and one southward along course to several cleanings freshaps Sahcabelon - but as far no visibility extends to east, generally solid beveral open patcher, inegular, only one of them shows any indication of building, no cultivation several seem marshy but most just brownish green gran, southward these tiny spots become fairly common. Some black small pands (center) and some marsher of swamp with ponds in them. One tiny cleaning with a building. But mostly frest a slack stream &

6 1962

45 min

Rome faint streams.

Getreme brant, so with flat ground between, bills frested, flat ground meadows. Then a stream green grassy meadows. I stattered tiny hours.

a small cultivated valley, then a deep carryon arrows course with a grandly stream in it. Then shorested country,

Justemaly

modely stream in it. Then disserted country, no longer limestone-45 sloper partially worded, ridges tending

to be grany, relief, high very mountainous, some more and more denuded, then clearly patchwork hills very much the

cultivated except steeper

Then semi-cleared, semi worked very dessected country, estally densely settled locally

not but becoming more and more cleared

home freited areas. locally 75%, worked, locally, 10%, varying. Streams

in carryons beenne red muddy.

1964 guatemala-Kelief, gets lower but dissertion more intricate Kavines still wooded Visibility very from. after a few minutes. a mountainous region with long ravines converging bachward along course, mostly cleared. Higher peaks ahead in clouds. Love parts apparently cultivated, hedges betyeen patches, mostly parture with some reattered bushes. bottoms of navener worked. Then no visibility a shap mostly worded peak studing up out of the clouds. a fen dearings on slopes. Then a cluster of worded mountains to left, a plain, monthy open, to right. a city (fanta and) at base of mountains. Course turns left, along a word flat valley! Vetreen field-field green. Vetreen bield-field green. Then Iwad plat walley Laid out in squares - doubtlers sugar

10

J. Lalvadn - Managung Entre, flat ground is cultivated, steep slopes partly worked, partly grang. Alopen ango steethey down & lake. Eastward relief is not great but these is dissertin. Kavine are wooded, flatte ground Coastaf plain langely clear, lange frield reputed by ledge rows, mae inland the fields are smalle. Plain of Rio Lempa almost all cleared and in planlation prob. sugar cano. Complex area of swamper and layour east of Rio Femps. sugar plantations inland and along coastal strip where it is wide enough. Swamp gets namer earlivered trivail mouth. Visibility very from. Managua airport - plant Codraeum variegatum Prenderanthemum camuthersii

favoris inemis

or fan jose -Emphabia cotinifation red fores (E. corceracy) Enfrere propagais I de froduce and and ingliste pulabarion spallwales campa muleta nephrolopis exaltert fetness propring Como sulphine, affirma purpourate agravi arrenesine acalypha harfile Malvarran atoria Condigling to mition anadean bide alli bridens demanthy Emploreia les continia this search but the very rainy - rais and afternon. Det + non said to be rainest freist. Gladistry _ Dianthus Eary phylles Nalinia regia ally and followia maistim Gentlentin began (a milis) I lumbage aurerulates Drymain contata Chimphun compresery

Union or intelle Pregna min is Vesteling promotion Cuzert, agele Minere legal antique! Supplient to the weedle Kalander Later Charles replación spratheista (?) 30 total Decline of hymanical turn Kalanetor pinnets thatrens comments Herren alli fully Bleelining General alu Villa war whighly aprim a left toplaylan Caladien birto Xanthurny sagettifiche, Annihelle militage neph steps and folia Pirting at ativities Englisher with consister the viting parming face a laste Enoboting japonico asparagus plumian Carludovica primate Caeralpinia pulcherina Casimira edulis Windley delicion ersea american teatrement of the manner

alinistic sepren Offindras nevalor Pristing grajara Belofume arittata hiladelphier (large fl.) Experie alternifolino
Libius mollo nerium oleande Hibisous schizopetalus musa safientim Codiacum variegatum Grevillea robusta Coffea arabina Colocasia erculenta Carried papaya Carica candamarcensis Oenothery (Raimonde,) of stante, Pilea microfilestle Bantien to purpose (is staven) Carria alata lungarable men pyranticus morphilen autton Al Marketon Sierie Polyscias Pruticosas Land Mark Belt of the same then frotien unbrosside agricon leptoplyllun Lolanum nigrum Repudium virginicultingis Verbena off for officinali? Euphorbia hity I x the sa (helly high) Hedern helin

Galit. 15 - trip by anto from Lan for to Turnally

Out of San Jose -Coffee plantations triamed to about 1.5-2 m. Enthing, Tuga, and, locally, bananas.

The Crythina trimmed down to approximate the

habit of the Inga. The canopy varies from

almost amplete but thin to perhaps as little as +5%. Clumps of talles trees around house. Expresses Camarins etc.

Tres Rios have particle of Grest and patches of bright green grass. The frest mostly in rame heads and on steel slopes. many trather of sparse to clease bush.

Rin wand enter a platour of rolling hills, grany except for small many butche, worded raving bottoms, and hedgerows soparating field those are very confirmens. Durana hatcher and small

Plants seen on road not already seen in fore Dahlia variabili, Tiloonching semidecandra Impatiens balsaming Jea mays Keeny commune agave of sisalang Cornor tinetoria hopales cocheneliger neinem indicum falvia splendons Pelargonium zonale Duranta refren Presine herbstii Pennisetun purpureum melinis minitiflara Stacky tarpleta (large, pupel fl.) Cathahanthus roseus I teridium aquilinum Bosconia futescers ascellias curaeravies Munosa frudica. miscanthus sinemi ???? (bet, Cevantes + fran Viñas) Carria alata Ochromo pyramidalis Happotroma longiflora Tillumia diverafyolia alocaria mannhiga? Keminalia outerpa Celosia argentea

cult.

coffee plantations in low places. Hedgerows one very constitution. of Crythning gloricides both problaided, many other plants.

Benjard Cartago more
a ler save. Mt slotes
to left a pratchework
of cultivalin, harcher
bounded by hadgerown
In distance to rt. partially
wooded mts.
floral miles crut am
and of sugar care jestebe.
Paraiso

Reling plater will pasture, maigh came, trateries forme exofres latin whilenis cupremus. Crythring broton trage Jues clumps of hedge was.

Ant. runge to it. largely wooded on higher slopes of higher slopes on largely cleared on lower slopes.

ansderable care also ansiderable melig land. this in prosture but locally mith grany scattered trees. Patches of reard growth, serve freet and front come on the best sites. Convantos.

The and more carre or scept on steeper slope.

Fora and volcanic breeze and cuts.

Country gets rougher. Manana on steel slopes, come on gentle ones. Then lass rough - rolling terraces, predemenantly come. Dansus on rovins siles - where too steel. secondary servel. Km 28 Hedges les 2 motable hear, but some age of Enghantina cotinipolis (puple). Juan Valla, Viras Less care, more varley coffee & baranas. Some open seemday pasture with reatting tree some guana. mtilt last a maxime of work a gram. Lury

sloper cobber. Descending toward funially coffee bowners predmixant.

I last seen Turnally Ernil in your or warry Tabernae merting disante Gerneun cordifolis allamanda catharina Kavenala madagascevenis Unti capus altela Cito carpus heterflyllus de on franking Ragina spectation Caesa Grinia pulche mina

Cartago Eyzur wobute Cypharminghy Carnaing about Jew MANY

Cens del Marete Traza Volian Turnella - view Stoper wooded, lower slope, cloud. Considerable area on any whit is offer, Budow was says main en covered by Vacuarina. Kedges of Oromelia, Starling toopheta, Enplumbia cottrifolie Erythrina bertervana, alpus genellens along naviva faid to la planted to improve

frantier - fries N. Large trees left after clearing are cleaning in iantofititis mexicans

Capresses lusitarica Morphon of I ray - nottel works of freeds selected anister arbases, and areas Andryin, Minera. Cupriciones

2400 pm. montane forest in navinu of quercus, denn, moning, Chertranis, Drimy, samuela, Whotis

Dendropany Perlin Connes lesely in Freis and their character in ity

and Buddlein blowner aller allower allowers allowers in steper

Ann franct Chegra minimal modelines

Fred Broken harallow of her

Charginea Criania,
Charginea Criania,
Kin 25;
Constent content oute,
Very fraging pean weeds.
Ciclops abundant

The bill of and clander denon

active force

continue to a force

continue to a force

continue of a concer,

consider the concern,

consider the

Crate, wa multiple in water at least 4 of my in a contract, early south a true or day ash flat my the Complicated fuller The beds, much ensin of an en a come and to all queles Very tettle regetation of Jane - Stepher - Learne Bernettygg greveren yearself , I at truste of large to me of and a Jupper win in the the A The rivery · Ownell stermaning- from Cotice even some terming from grand on war Stighten GOr aches.

Cine, in ser servery of Vaccining Pernetty of Marchery Myring Extended to the servery of the ser

Bulm

Decpravino vota abundant gunnere Chusquea, from heite applytic vaccinia,

the pattern in central Costa Rica seems to be that the lower reoper of the mountain and cleared and ertler in your and cultivated the fields and derate reged represented by bedgerous a tring fences: Locally mall trees are weather in the partures. On the upper mant of the cleans slopes tree become my frequent, and almus grullense is actually left or encouraged, ever planted in the parties of increase firtility (Nots are full of nodules dens much branched, caused by

actinomyro alm, a nitrogen fixed. Level around sometain summels locally sense, totally spend - will by cattle. Hilly or rolling praction. land is generally clearly and in frature of cultivation appearantly defranking on age of the lava a ash and consequent amount of leasting. The best early de in jugar, fanaring and coffee. The from in parture Her again the fields are reparated by belyen. most the mountains seem to be at larger. Talley of the Kennenteson if he it deal and more and many foundations coffee his in shaded, the way from fun forse to Hereslig and most of the may to the august. Cananas commonly planted in with coffee.

1962 Costa Rica 1100 m. Oct. 16 - hills west of Turially 500 m, in hedgerow along road slender tree 5 - 4 m. tall 243745 Mysine ferryines 3 46 Casearia small tree Oct. 11 - S. slope of Irazú blear in patek of open word 47 alnus joullensis medium sized tree. same in devet raving bruit rearlex 48 Nerterg granadensis 49 Nertera granadensis prostrate en wet grund 50 asplenium common on cliffes 1 Cerplenium nave on aliffer 32 grammetes rare on roch erect 53 Elaphoglossum occasional on will commen in rock deep same - redgep of, deep savine in parture 55 Cruses? in gran prostrate; stamens white. Cennisetum clandestimum forming a dense mat small tree; cathing pendent. 57 alnur josullensis commin in borest

400 1962 Costa Rica 26 43258 quercus saprotactoliq? 39 Spranther epiphytic on the trunk in edge of fruit 60 Polypodium common epiphyte Corner disciplina commo 62 monena rave in edges of frest 63 tuchsia eveal in edges of frest 64 Cryngium abundant on grassy slopes 69 Drings winter var. common LC Valeriana rare in earth banks at edger 67 Cheilanther hiroute Link at emmon on vertical earth wills 68 Cyctopteres deaphana (Bory) Blandell det, COC_W N78 occasional in vertical lath walls. 69 Citharexylum lanhesteri common in front 70 Drymania common on ground in edge of frest

tre vomitall erect, flowers greened, nots tuberous, fleshy, friming a close mas. Tree 20 m. Tall; fruit green. shrub 3-4 m. Tall. flowers bright blue with yellow heel; rips - fruit black, fleshy. strub In. Tall branching somewhat distictions, flower rose pints. heads blue, bracts white. her 10 m. tall, flower white; leaves white beneath Clowers white leaves white beneatly,

bittle.

tres about 10 m, Eals white.

1962 Costa Rieg 43285 andostaphylos subereem 86 Cernettya common 27 Corania common Oct-14 - south slope of Trayin Voleans 87 herlera granadensis abundant on wand cut Plants seen let fan fre o Crisport (benow Heredia) Robbinson Fielden Samuel fembreus mexican Paneren unerimmen Jamin Calapter Oct. 17- air trof fan fru - Panamalinty Reventarion valley - a districted orch ted-level shits generally in rugar care, also many of gentle stope roughs. partienthe pulling on with. struth side, stopes will a

mt. largely copper glantaling

some Maders

should an tall; flowers white, maron at orifice, fruit black, rugos.

Tall; flowers white.

scandent shoul, family, branching distribus,

racemes many.

300 m.

brining a dense mat; flowers yellowish, fruit searlet, soft, juicy.

Carried with the alordiness,
then a stret stretch, of
visitity - a vive, winding
execute but in a carryon,
about 3/2 m y man,
first in billy country,
forth, exit of the solid
forth, exit of the solid
forth, exit of the solid

Panama is green at this since On Pairfic histo the shore in middly a lottof mangrow official cinguit. 021.17 - Survice + To Transly M. lecount = - con Gracia execting demination catifica to minimery Cornering equiretifulis Trething mountly envisetien profesioning fraguera retrifation Music supremention Cancium maximum Alexander referen Hereinam office ann antoen our alter Lavain jour ante a most or Generalium residentale Condyline terminalis Mangiffia whice acalyfella welliezen -e Carries front you alorasia mountaliza laibreau macromensi todianom verication Carpeter wers Lectons grand Agestonea olcraceo Cuphrism pulkharine Tenna Pryhids Italian bythinks I humely mily lienstonen region firm minorada Edladium bicker Miss sevoluta

Menny audience li Charing free free to Nieffenbachin (Mother) Chingsal islocarfines trolescens frindaying arenny Cycar curindia Plumeria obtusa deterdance purposering taiffulyelown enofeleyblion Keeining communic Rhoe sprathason Garris quetabilis ussella equitatifamina taludorica patrata Veltophorum ferrigineum Olpina miting Catharanthry roseus Volgacion gentlogles Murraya parliculata Livistony Chinesis. ilea (mic. with large los.) I shower fintulos fansevieras guenes são De cleusing indica Aprobalus of a comme Heloning region Ravenuls madjacar com Caesalpinia pulcherring Juisqualis audien molia sovartena Tougarnoille a spectabilis? Englished apathelita brathodes campanulates Kracaino draco?

1905 Reft Colonier Combie 36 Let medicin mide were little work Alphi Congra - and saix. diff great wing frateling yearly graces grilly boundy. deglant hitzer This orner with off words over 1 of and not been extended. topallace of me celetminates in prover, ligh CANTIN TO SER LOTHER peak for to - war - lare un de fronting new construction in the belle Dis Chires large, very muldy seem united righty of a little of me a last are - kny shad - Killy fragt on the the demander now-houses. safe in of a . The of of Lower slopes on west side the landscape operany, of valle, are service, ende meiting remarks of month and vary, at least bely in the naviota down then from outy. Jussed a great that almost Coming out wer east scrafted the filare. Forme awards rim, barely-lowered are on high whiles. I hastly graney. Valley with "-Cover for the They will almost entirely Stal day denided skat bottomed Merceley. - toll green, with moines outtwates, till, Almener out in the will. grang a brushing. it soled parine, Pur and I . Unen a Creat cultivater thatcher, hacienday, on low voller with a tightly meanleing bully land around it is river (Kir Lving?) Circling in to airfunds Christophing billy River - Tiller tree . Anomalije. Colony grave. . mostly cultivates, to LA FRENCH Z nough march mountains Limitely from llant Res Magdalona - mudding Enghadriative call Wills generally green. Hiliams whigh petates Sweepen, stoffer - up from Mentera delicione. Magdalena to the mountain ad they a laid may um of the Laborer. i withit is pulchering

A STATE OF THE PARTY OF THE PAR			
40	1962 izabela		Eunden-Peru 41
	Broken elnds av no good idea of the teasons is prosible.	10.7	scattered cleanings
16:24	Frest left, through the inni	11:05	seems to be nother mins yeneral aspect seems to be dry and drown, with mins
	stold in being ent very		areas, a large ch solve mennaeing
10.7 8	mountain, out the recorded		not at all obvious ashere there, i.
10:30	seen through boles on clouds: Some shifting agriculture, some forest, forthward.	11:07	conditions, and a strong turn to left, then
16:46	Lensideralle forent. Lengande emply, 2/3-3/4. denuded, eather sleebillet. furthword principled,	11,09	with many or and lines with many son lines character bare brown
	Lestann appearantle		are very extensive. moth filing extrary a point reacher fraits west, esturing transverse to course after turns.
16264	well worked, much less spelments armed less	11;11	sea must drave
14216	en elvis affera	11'19	Promo hills with green
(6:49	with compieron, white trees,	11:20	moster de riad voe brown
	a rood trending east		bills. Country quite rough,

1'eny 1901 Derry 42 (rees in walleys which Very rough day country, show a partern of ently field. de Maringary and hedges (or ditches) Constant the one of der i stand on hill Heats being sandy fargerise valley as le seen for to my bol. O' verreber of tone estate 7120 The, clima. a valley with meson brabe and a fortied fermenth on Cloud, War another constal The they do muched butter, but un orien that is mostly sandy willy greened, recommen Hills away from want are dince extrapo 11) 4. lower. a beri navner I realize the refer to your mother 11:50 straw gallery word, but duplille fort with result my town gray stuck and of extrator more more in bottom that must Hole in clouds - stores wyland billy county US of a ref cloud. draining wed, with 12:03 Hill approach very closely 12:04 frence type grandend. the easily that a flech more france, sloping valle, belind friest valle, westward, no wood, Very serious entire in certain leading down to it ridge. Exzetil elezert traia draides pattern, visible beyond several considerable regetation judger in distance, great in mouth field green field brown if valley leading drung parent will with 7:04 servighen sende in Comma derrie closes to plattel navine bedy cogest Hillian acry Then complex valley and completely trickers. 1100 system in desert Valley Nothing are enelly, with pale many cultivated on they become byttom, major washey - it de enough. with sparse bruel; . Forme of will, are stighting Unititity oran. - Crustry

44 967 1 200 I wrong extensing regulery 2.00 whole leading the greatly exact, do being lier Minter of a soldy - detack expense there are vegetation There ils not appear to thouse exam entirely logist errain ge frakters - pechaps some falling with, sund,. Cloud !-17:09 Doscenling trust firmygranus in complete. Agra l'as Cande off acount. complititely localities or my visite orgetation. 1:4 Fanded in Fung. It - carry from the contract perceliately to the engine 1.7.0 The recent of the result of a made the title of one - - wayele termetall. Meaner aufurt and igner. Truch farmi a line 14 tream with site on settly go the contract. The land and and confront in remark of cere

y will have been been

Energy day, now faling

filmented, the comment faying

-15.0

7-74

Road to fante - with some of with record of the serving - this is a dense serving - this is a dense serving - this is a dense serving - this is Chargered & 10 - in - Chargered & Brunfelsia Cyathea Chargered Brunfelsia

Some washy area.
Toward sen the front
because were sently, were
opening.

Then on the books off, the relief is opent and there is clock conyons out in the granite dersely covered with a low proventwild be called inventant l'lants seen - Las l'auto Enalyptin wobusto E. saligna grevillea nobusts President Cerminania Cytique scoparins tiens permits acception consistency Musa marine Muss. soprentum melene mentiples Rupus Masofrenes formbuser-institutes (sees we to being Codineum maringalium Interested telineur lerminalize catalog Cycas cercinalis History region Come papays Lordinan quajara berser amener Cordyline before Tolysias quelloyes He mentales freeze accepte without. · Kanzerzein Gunderen Cill Back malvaviron arbnes liverix robblining feviatory chinens Rogertines regin K, oferacea

Country web is generally.

at fort of range i, on extensive wangung swamp with winding channels

forest is sendly largely langely will action new, Vernonia of a compression of compression of the white proper maning the trees standout, in the continuant, in the compression of the standout, in the ace even diminant. Comment

In marrante theren arrown Hibirties tiliance

Essa from I fruit of, Cerno de Mor about 900 m. Worded except some le we, setter mais suifering reguestione, som Plenshensen, Manaras. Plants (stall distrible malagariano Therebiging grandleg love Colocard excelente Wenny ollande. Ur underen Frie to Churcia specuoa Draceone fragram Freus mitrotapa Kelander verticillate Atrolity in Cother of 1 accinplic marquela anchorte phoenic alone milion Line deputron signinate fidem Euphorbia Michens fitzen myhiels Daten stramerun Letrum siturium? Month corecine Churring nutra Bloods denden andiem Aluxen elephantife. (7) Tucholarna wasa Clermengo ourementete Ralix bologlowing ayane sikalang Richardia Casiliensis Infraedum majer 1 20/A Eyndola drylfin (all) Cardamin Kright

forden cleans Levis Filteria Phrenix canariensis arecastrum romanzofbianus alpinia nutam Jacaranda acutifolia anaucaria excels Dallia variabilis nerium oleander Coffea analisa talvia splendens I fromoea cairies Cyperus kyllingia Tricholalva rosla Tipuana tipu? (com it is) Capressus sempeniers frens carres Fobularia maritima Xanthoroma violerly Washingtonia filifero (slender) Pathenium hysterophorum Hibisaus syriaeus folanum lyropersiaum Yalinsoga pavifla sitain palmpoling tedylium comminum forecer paperica namus galaces Empharba limale Cyporus notunden

ot dem slasting

Oct. 27 - Trif Las Pauls - Ernas Just outside fas Vaulo Toward Julitial on inequelar morais of capolisa seemel- guestly seril is sent front marked by Ceration, onen for fields, que lighter Caround Counds Jaraque is a little original frest, and some cappeara in rough grand. furt beyond this, but stil in billy, Encolyptus blantations dominate (reveral printer), Me Cinis afounded in open avious Weedi- Cymitin dectylas Level on the coloniers 7/4 Cina minutiflare thidness agreeleving. this extends for some distance of "afrois is year lia". hayoul this grow and frig entitue, it small faunt. farming a mosain with Encalypting. Strally a churry interduced barratos in low areas. a very few coffee plantation. Not madel.

Country becomes about more offen near Campinas. on diditically ended and clumps of avitile hallen me contestion ... and indicate extreme. degradation. What eaten ly cattle. Large termitaire. Typilon marshe in low スペイン. Mun. ob furnare. lacyma were counter. coccine very year. much protect, large Concurant Lucia carri. Colores unothy parties anital Ecceptan - Grit irregularly scattered. Bruisley revines. a frew teathered Commono exclusion More and owne or a reg groves. and Cucylitin plantation towns fine. I'm sugar come. This inneres until , to the left of brighten it alminate landrey dark rest book soil, from weathering of bazalt. Deels. Hot afall welly. soundary frest. Viny, Whole area was formerly coffee.

Then they often and news form small areas of alcunter fording to Parting with clarks and natcher of Caralypta. Leme Kange Engalypting filoration. more ofen courty some vange groven latelier of re and growth. Tecomy slaves in ferre. . + cultirule agragionia relengatione. Italling land. Guilea fred fraction with the ravines and place of the for and when Vool fante ling. alph. Vinastranga. Croton (tree) abundant locally in low siem. fitally l'introducte colubrame. Emilia jus. on wardist Paramerica, (actory Conside) Mangifera andica Meas einemaks. in low area. Bambos formal Cachoein l'on cerady burned relatively recently. Varied in stature.

Cecholin - Limi fices microcar per x= street, many his mogiffican . has many free of fire. Khyllodend un Oiljunatifiden allamante cathering berminalia outafine Citrillus volgon 1500 m. Campo Cerrerdo near This area has on one side of was a protected stract belonging to the University, not burned for 15-20 years. On other for the Side not protected - (photos of both, bun. 2 kod.) The protected part is an open to closed scrub to sent-front, general level 4-6 m.

but emergents to 10 m. generally mesophyllous to microphyllous, back on most spesies thick and ridged, checked on boken. 4 few marsphyllows species. Varying from

athophyllos & selerophyll. Gadly invaded by melinis, which forms a complete grand over.

Roil a pinhish hours Hine loany sand.

Much dag up by armadillos. Thich bank - Swetig

i'm it he and of now when they has been C-21-21 - 9-20-20 -1, -Course periodes =11 m. it was to got the contract. distribution and office may to feel from - real prost, - the model of the total constity mentilagles-i. The many tylest. a the a well at the comment,

Frent meaning continuen in a course freet 126072 16-20-27 -26/ with a south the minimum 111. In - 4 mm, spine of -10 ml . 2 mmd_ . 4 - 6/6 6 16 11/1 letime and have the year I have took

real layer, -1000 -1-Paci & and then Resident danses . A and and the second dely cry in the same Aux mot electe

 $G_{(i)}$ $V_{(i)}$ $V_{(i)}$ Oct. 27 - near Pirassurunga wadside in red soil in cutover "campo cerrado". 43289 Emilia paranieg (Bum.f.) Rob.

My Pagasurian d

flowers red.

Byronima Coll by the Teixecrac could reality in books 42,20 finite from Emos

athophyllos & selerophyll. melinis, which froms a complete ground aver. Roil a pinhish brown Hine loany sand. much day up by armadillos. Thich back . Swetig

another and of mos where they has been for an of ground in love, petelus ey v. Alonely and lower. distribution of the varying to ready inter, service front, or the model of article mes July lies. Their in more typerant. Derify and a furt on a recovered,

See James 1 - 11 11 - 11 Ost. 27 - new Pirassurunga wadside in red soil in cutover "campo cerrado", Emilia pavanica (Bum.f.) Rob.

forest meaner contrary in a closes freit revole 14-20 to tall with a per trees afil, 4-50km dlah, which - Ul - - - 4 m. spaced, some amad rapling detruce there and strike la yer 1.5 - 2 m, will everyplight ded layer, mostly seedleway. struct cays in the stay - Myser. -france emmine Shiply te. The present from adjacent tithin in and where it has for exerce execut aden needten tisen. Her cereals plants - No emein fruit because of company. Front a granged to Treet is probably any that true the dig add And mot steened.

Mun Pigrosurumia

flowers red.

Loo Paulo Brazil 1962 60 often semb or semb forest Ort. 27 - Emaz, near Cacholing Munde Pisassuaunga in campo cerrido vegetatias badly invaded by melinis. should 1.5 m. tall, bude 43290 Randia? not open. oriasional shrub 1.5 m. talf. 91 (leg.) Connarus Julous Planch. fords inflated. and rank marginal flowers tubular, 92 (comp.) truple. occurma erect 93 Stylosanther guarensis (and.) So. Shrub 1,5 m, talo, - fruit flestry, red. orranional 95 Tabelia? Zeyheria digitalis (Vell.) Hochne 1974 slender untranshed shrub, 1.5° m. talf. rare, one plant sees strub 1 m. tall 96 Randia - Clower dull yellow. vecasimal leafless shrub. lonen eved, milly, flowers 98 (andep.) Blepharodon kineari (Weine) - green, crowns white. rhizome bried, frende adientun - erect. common locally straff tree; flowers 43300 greenists. shrub, m, tall; - ebu shout, puit green. rare raro flowers bright yellow 03 Wedelia? occurrenal clumps 04 aristida fallens common locally on sutte tare soil

1962 Brazil 43305 Spermacre oceanmal Ob Gamphreng macrocky. mart. commen in trails 07 (malfi) oreasimal og Caryonar occasional 10 Amilax creasimal 11 (malfi) oreanimal 12 gernes. 13 Stevia? 14 Mirania albicano (Sw.) Triana (det. Wurdack common 15 Cugenia 6 Eugenia creasional 17 (mountaine?) occasimal 18 Vidymopanax 19 Erythoxylon torthosum Mart. det. occasional Plowman 1983.

ered, flowers white. not enlarged; heads white should a m. tall (orthere seen much taller) petals small shrub shoul 2 m. tall, just part flowering. turning is bushes, - fruit very young. remi-reandent shrul several m. long, fls, yellow. erect from buried tuber, flowers with cally and corolly deel range. erect, flower dull shout 2 m. tall, leaves deep green about. strub , m, tall, flowers white. should 1,5° m. tall, the fruits immature. shoul 2 m. talf, fruit immature sparsely tranched shout 2,5 m, tall. shrub, back very thick leaves glaceous

1962 Brazil 64 Styras floribunda? oreasing reasimal 23 (fign.) Distictella elongata (Vahl) Urb. (s. 1. to include D. mansona) del . A. Gentry 1974 oriasional Engeria orrasional Aegiphila paraguaiensis Brig det H.N. Moldanko 1974 orrasional on roadside 27 acanthospermus common on road ride gand Oct. 28, 1 km. n. co. Campo grande railway station, Amun. de Ribeirar Pines 28 Polygala Talas tola Chal areas common in wetter fronts 29 l'aspalanthus: Leiothrix Slavescens (Bong.) Ruhl. common locally 30 l'afralanthus planifolius (Bong,) Körn det. 7 Paepalanthus planifolius var. villosus Moldenke det, Moldanbe Nov. 1994 31 Parpalanthy Ruhl. det. H.N. Moldenbe 1994 occasional, on mineral soil bouch 32 Cladium abundant, dominant locally

should 1,5 m. Call, And only, shout 1.5° m. tall; - fruit very immalan strule 2 m, tall, branches assending - rather strictly. climber, flowers white. tree in tall, branches flestry. showl 2 m, talf, faruts immates. defrened shoul; flowers whitish, frostrate, spreading from central noot crown, esterrively branching, heads whitish.

Mun. de Ribejoro Piras

note with wintergreen odn.

det Moldenke Nov. 74

Moldenke Nov. "74 lange rosette, with a stem some cm. long but mortly down in peat.

learge rosette, heads

almost globose.

erect not especially caespitose.

Del va Cica Alma. of the text i will know my so m. Cadopogrande June worked from etrulli. Oprioning the myseles East might beat that the tell of and Aug The Contraction - free telest - more (1, 14) ella complete the second of in the placements. Low with red young growth ove without) - antica o derety when the Voit por and En a sum Em my . MI annual watered thickets 1-30 tall in lose offer to. provide a withdraw & on in Wany sternound theretain. a bearing of distribus scarce of segul inderesa project the standard Africagnesia i de metrico

Oct. 73 - Cataria Biologica, Serra de moji, la anapiacaba, above dantes, n. a. fas Paulo about thousa obrive from for Rould over diet roads strongh the low trille of the era stat range. Much industry her. a large - much at probably included in the water reserve so may be protected. The hills become partially world with a serie of serve forest partly clear, hum between and bragger for m la rana firecaba flation. onthe rail rad it is 15 min, + walk -up to the station (fistogica), which i, in tof of a hill surrounded by a typical mintani soul fred. Kantos is willen a clea, hay: below. But clear days and mind to be few. The southeast trades but the exampment and are muched mys. The sample hire is between 160 + 1600 mit bright and the news at the station is over 3500 mm, annally Cloudiners is frequent and dringly rain prevalent. The entire reserve, of 740 and 1 is wooded. It is deeply dissection unite ridges and coursely with many strame in acreal place. There is a divide be toreen the

Sav Paulo 1962 Brazil 43346 Hymenophyllum abundant on learning tree trush 47 Trichomanes of wall be the welling 1775 very locaton steel bank in canyon 43 PROPERSONAL METERS (SILL) & E. LAWY rad, on morny rocky bank in carryon fronds pendent. grammitis common, abundant on mull sterile tra, her trunder leplenum monanthisa. det Leiterger occasional 51 Asplenium Rolyphyellern Bertol i det (det. Wurda rare on the trunk teaves dark green above 52 (melast.) Salpinga margaritacea (Nard.) Triana with a rows of white occasional on out bank above spots, juighte bleneath, trail in canyon scale erest. sprawling strub Vaccinium 2 m tall, corollas white, rare in undergrowth 5'-angled. in deel canyon. strub z m. talf, flowers 54 (melast.) Leandra quinque dentata (DC.) Cogn. (det, Wurdack -white; fruit immature. rare in undergrowth in deel carryon > Elaphyglossum on tank along trail in canyon 56 Trielomane abundant on tree trunk Hymenophyllum common in tree trunks 58 Hymenophyllum on the trumber polyanthos (Sw.) Sw. del. Lechnger 1978

(from y 67) lancers and attention il winner. On may the found in them and at willy, in place very dine, generally united except for a coing grown of corre of burnelist, and fem. Un. tending to be thisme. away into trail. In some filere out in notger are writer, or There are flat onen, the vegetation becomes more southly and touch. To be more ofen, with much Planothenge Inthe now incited the truet beenney is now to the till to TROUGHOUSE WE VALLE CALL CONTEN trees perbagae 4 ~ 5 de 12 det. 1 1 1 1/29 cornellate. Epigaly to one plentifin, expecially orchit, and directions, also Hymenophyllow, other perm, morres, etc. mue so in the deep ravine. than on expressed ridges. However, they are mot or peacely plendiful invert so that this could be designated me any frank or claud freed: rung: med swotlen with were the felicies and marile Various med a vine deternit!

Certain andean elements.

It is to ble it of form.

Hedysmum Helle for ities of Melastomaccae common.

but secretly abundant.

Some lianas - formilas,

aport with whitefly, stevia (1).

various avoids. Avoid and

ferns with stevens clinging

close to tree trunds seem

Utricularia of humbolitians,

workers man along edge of great

common along edge of freed along the area directors which in me is a plane as the principal trades Religions is while fleshing the server root-libertender muster transled to that be a

the reserve is cress nowed by a network of apareled trails, which on alother have sleeped made by furthing in small loops. Therefore common williams in a minture of common williams on minture of common many of common

Out. 29 - Rio de farere islants iscan Hilliam telemen. The manalia catalyla (common sty try) Royatonea ofereces agent sina lama (wane, itie) Floren exaction Free, grandwate. Codioener waniegolien Contryling frutering firstern charge Xanthosome walver Cyprove of talayan Eichlice consulpe, areastrera wonangoffingeren Peltophyrum Berneginsum stor muliper beinglapper america lyllodend a bysionalifiday nicotings taltanon Leteregria frenen Landianin s'-tra , techning, Mal varyeem Sanseviere guirenne Galinsogn parificant levin indire Carpota war Mangylan indial Ducheng Johnson monther delicione Xattasone sagittifice Carra hom. Englowing pulcherina

Ilume we rules 7 Lunberger grand Il Contederia condata teen merocarpa letima fromoen frataloso Welving stopen lavenala madaguscario Crype in retunders I hayllanthus amany faciolepi, indicus; Moquilia to mentera (Ros.) o ichi actocayus altelis may have me town Crowden deetylen. Dealy Wha wellers and thunk gio alata tien themila Correction streets olycion guillingles artocarple he timophy Us themberge garrental lamena mediene. Sporthaden campoundate mondieg in anti. Pridium quago Wedelin trib trata fisher alimited lies -Fish acrota furthern extrem Wiena infacts Muntan musica 1- MILION MENTERLE LALLE

78

Mr. 2 - and try in Quantalan. fouth coast - steel and wells between broad beacher grameto slopes of boute of. eliff- wordelly scrube theoper the acoper crevices a le object which have horlaceous white. heard around fresher ds) moranged female a agella. (plate of Us-Landa James) away games golf Clas steel arreled a logice. sea Maria re-lit. Commission. a fee downer & revenoft hours an thun ships, - roth at uch combined there The work on the lower stope. w. Cross satelle to Barry Much funge sand of lot of restinate - most they down by day is they to the in a report - and of will instingen between frantit this of Facilian marting! June Prancia. Ni - tilicano Attended to the letters we comment of a free time I wanter Nonge son years then eiter

this palmi. bitte not eater. from just vy, and a stored with bread oval to hostid tendrile - Permenen. form sports brance, black freaty sons, are diminity Ly Engenia Little underguale many magnities aling margins of and - whit afriday to be a Blackway in sund young his restitute. . 67-1 - 66-64 Action the second commun in with places and in some wife. Dype us of (glanzones) mery commer in a soul ypha marke bladen marsher much Recreis des Bazilinantes rigina Kestings with sand that. weith went love theme your track of brack they rather blown out photos, with a letter angunton acoultin me where mand is french molinary from mightyte. Just buch of beach a strife of sent of Defile tioning maritimum up 9/m tag. (galactory)

Trumpetta bartramis "unchigo" Pinete Esta free as to promper teles we testing to be Engrastis alians Thorneadin caturas Guldriching history Reminey was itting Stempt apple win secundation Richardin Masiliences Trechetaens, was Candvalin wing fartole - - fine Erec latites wardenoungelin Caryota mitis Crycas crainale William and coth, or legoarrie butile (cousting raviel and Epevilles notherto Cydes nevolute Didlem prices inclusional potio Russello Lynn

Gard along the - 12: 14. show - the belt of dune nangur, but the bely of fall ment spread. to the bound frat beach of the dung. Unther teat & complex money of sand our meast regetation. Men sint learn, dened with iladium march pahaja 30-5 m. w. Between Chi and the dure vily on which in the rood from some with scattered ?- was, achmen?, Tourne prition, ingeniale, 22 aprotección, -Enflowing cos.

Conthe treactiff the formation of the Sport order of the second of the s

Early of a long to all tondo to give in my fet may a lagran to a dense wind on spray sheared sout 2-4 m tall. Inland on nextings believed conjugation of Plending about 7 m Late at orderfordome, but fonds
yet at all instatorminate
francour makements

francour makements

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franto, called "funkcing".

my of the se things

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way of a low braining of some of shorter with many of mine. Control of a Control of Marine, Cerem of the Control of process of process from board.

Turners da ligner process of aprehicle closes of aprehicle closes

Carrely do alta do hos Vista

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or my composites

The way to cheritade a thru

overy way mentance

- air freetom steep shops.

Cle ropie.

Cle ropie.

quanabara 80 Brazil 1962 nov. 2 - Kertinga east of Barronde Tijuca in low scrub regetation a sand flat should rep to 1 m. tall. 43368 Vaccinium - rollar deep red, rip fruit black. very common shoul 0.3 mitall. pedicel 69 (marcgras.) and bracks red. shypmer bried, frankerest 70 Polyprolium? crasional low shruk, flower 71 Carria namosa Vogel slendet shrub 1-1.5' m. tal. rare 72 Croton oreasimal shoul 0.7 10 m, tall, flower white. common weak shoul or sufferent 74 (comp.) herb, flowers dull white. creasinal no. plant purplish, flower white. 7) Checkengia limuspora (Wild a many stems from nont rare in base sand 16 Dirdia _ crown, fls. pale larende occasional on base rand low shoul; flowers very 77 (anoth.) Mariagnia englet yellow rare of a blowers white 78 Borrena common on sand nor. 2 - Restinga de Barros de Tijura in bolune ridge of white quarty sand just back of beach acaulement; leaves 79 Diplothdmium maritimum spreading glaveous accordencent, leaves of reals beneath; inflorences bring a dense sent erect. belt just above beach

Brazil 86 74/962 43380 Cliloriax Centrosena virgunanum (L.) Benth orranional on love sand Il House # 81 Boneria common on love sand 12 Hydrocotyla bery common on ofen sand 8) Boerhavia rare on love rand 34 milia son 3 94 Emilia souchifolia? common on love sand same on sand flats well away from beach 85 fimbritylis common along edge of water in channel 86 Paspalum distichum 1. common 87 (ngenia cumini ? dominant in frest on low so Lamp sand. 88 Richardia sette Grantiensis Common nor. 2 - grute de imprensa an wet norths just above sea 89 jemma 90 agolla abundant or wet with

spreading, forming 9
lovers mat, from root crows.

flowers larende
leaves cinerous; flowers white.

rhigames white, fleshy,
buried; leaves stiff, plain,
blader held vertically.

stems spreading to
ascending

burning love sod

tree i m. tall; flowers
white.

prostrate, extensively
spreading, flowers
white.

- certranics - (publ.) 1967 Vingania a Prumus serotina "Lad gueran mera Miv. 11 - come in water Pinus nigida they waster the second of the Martin de la seconda se en la seconda 50-wem, '-- (1) Then will be treme querus alla green veliling pirivdendo. (sale) layer of blex opacy, comm Carya of. Fraxinus americana l'a plum l'inus virginiano Grenn balcata forally some time ving. Confirmed Cola Leveral old roadways 11 - 4/20-Conus plorida r Vibunum acerifolium la Viburnum of dentatur var Toward Braddock Rd, Tagus beromes langer, me abundant valus leis * low shrubs productions, except to west Miles of reference where are several patches. de montre le le and a scattering of large Chimaphila maculata le l'inus rigida. Loncera japonica allium vineal Monotropa uniflora Vaccinium vacillans Rysopodium complanatume Lygla rolundifolia (rely) putty of. Smilar ylanes Kudbeches laciniates Viola sp. Goodgera puberiens 4 n galum circae, ans Tipularia discolor 20 Monotropa hypotity Ligarpoduem sto eurung

Fairfrax G. Virginia 1962 but mostly templets Mr. 24 - Alepy Hollow Trippes kun brice bleefing Hollow Road bridge. Bottom land frest Lindendin Guerra alba Cinna anunduraces, Elymus of. Panisum of. clandestinum Grennspalustris fuciens francis cocine quereus bierla Weer rubra Upstream the forested bottom broadens out. One tree with bash coming Showb layer, 1 - 4 m, tall, off in wind flaker uniderlifted. inegula Small patch of inus c I'mur seroting virginians on slightly c fragines americana brigher ground to left. e Rosa multiflas this adjoins private property le liquetrum vulgar at back of lots. Has many with le Colytres et connits mus c Lindera benzoin paths at least 2 pines cut down. o Viburnum prunifolium Considerable Lonicera japonica 0 V. dentatum langled up to 5 m. o la Caypinus caroliniana tangled but to about 4 m. above this, toward stream, Linitax Vitis sp. acer rubrum become abundant. Then there is a Transverse los tree trunks. strip where the forest yound overal locally has been out some time by foricera paparia. ago probably for a hand of the Tripps Russ server some lister of lateraflow,

94 1942 Vinginia.

this frame some offen

grans, some alnus soul,

some brush of Prunus

senting saplings 3-5 mtall.

The ground is marchy.

Cover sop.

Dulidium

axheren hispidum

Cotter sht.

Aslidago sop.

above this is a flat
of some width covered
by a frest of
acc. rubium
Diosprys virginians
Guerrus palustris
Eriodendron

mostly rather smallup to r dm dbh, occasional
much larger trees.
Enciera much more
loral here, in places the
best is quite of pen.
Vibrumum dentatum
forms clumps.

har much allium
vineale, locally, and
Germa hederaces
on the ground.
Here the Vibranum dentatum
is most abundant.
Conna anundinaces
es common. home findery.

southeast of this in words with little undergowth Cinna arundunasea is very abundant, againmonia commin Pear tripps un considerable evidence of small boys - chopped fallen trees, paths, etc. Pigging on sandy streum terray on sandy near Tripps Run.

Of lower and of the open strip is a swampy onen, but a ditch has been dung draining this into

About half way to sleepy Hollow Road or small channel front has sobren partly drained by a ditch rather recently drained

One querous brisola tree perbahr 15 m. from Triffes Run - only one seen. the leaver from it are very confriend on grand (leavy wind last night) These was sentered to 7 riffes run, about 50,5m. from Run, about Bony stream, perhaps 40 m down stream. Perhaps some measure of influence of one ruller small tree - perhaps 15+ m. tall, 25 cm dbh. much overtoffel by surrunding trees.

another ditch has been cut tother Tribbs Run just back of lot bracing block of Hollow Rd.

nov. 70 - Ston Horas, just weit of full Run one, Manasses
Chitlefield fall
Chitos of Clatanus orcidentalis
along small stream, in justure,
with unipers, etc.

no so willest my, Ineserve

control outlines

The avend't see grouse

The Morning and or wild to hop

yether land

Elizanthemen ieweanthemen Symphoneaspor orbulatus in fruit

Winter rosettes

Christian brunning

Christian brunning hantaging the

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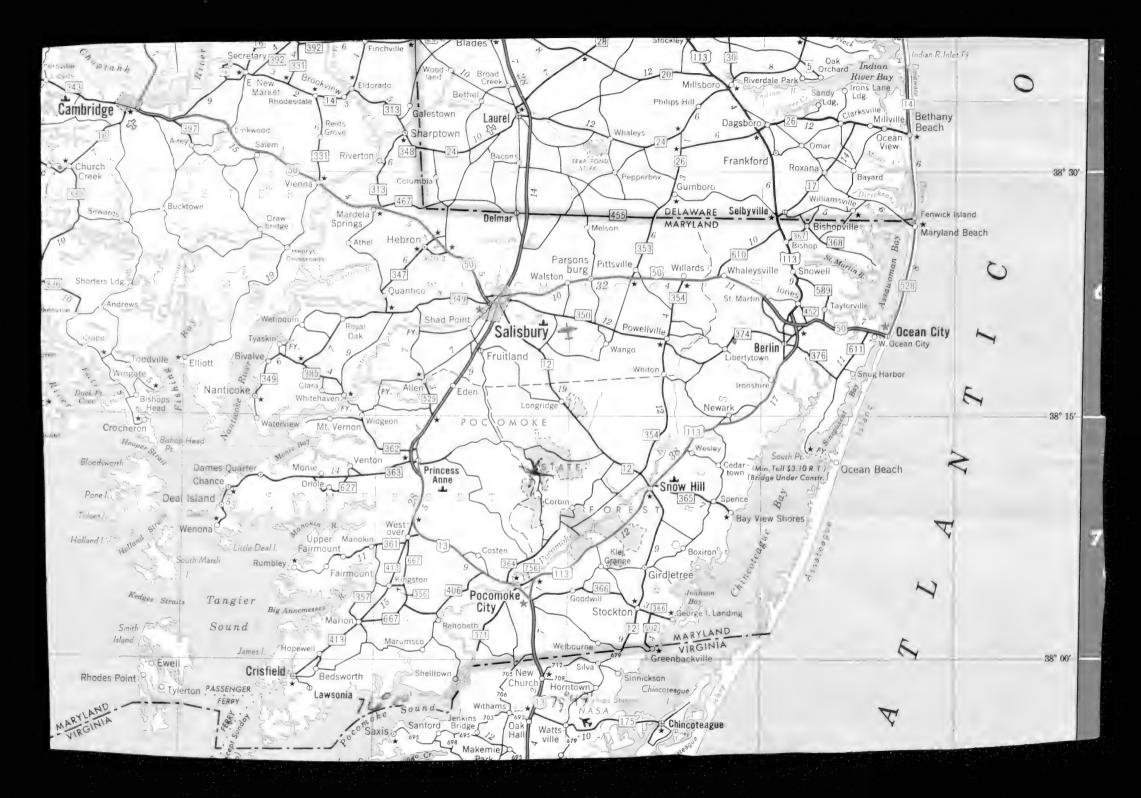
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Coffee hum acroshelicides
Coffee dum vilgas
Coffee dum vilgas

warte & 1962 maryland 102 hor Shhazmun mora mannie in Il erware. There low Ante common, even and from steam Osmanda regilis Her once alundant, frommy an understory minter trees in many wirea thros characteristically curllen besen - Lina! aredium armon locally in swamps. I me pulling - Itamy Large area of sinch for mustris must buston . un i im Denilaman Terliam tin int . I wanter often zom tell, 3dmith will inlarged plutes laren en time. in alleville of in wall, and he were in the committee laijacint is nother mine wording swamp. e de la maria della maria dell mother live nulling, themist about 3- 5 m. tall among in the servicion is moth Ligitus Combar and ever our





I wand the fields

in this becomes less

ind less hummoly,

for wet ground covered

by thin grass.

perhaps an old roubbed ents straight across
unis to straight across
On slipe and to feel
derei much tamples
Amilian sever intemy ted in a deep beach
elingated proble 6-2 m
over on connecting
the swamp on both sides.

55 or co ace for sale, belonging to william & Denton Box 184 Pot to I know till , Wed (Ph. Princers anne 734 - W2) a few acres of it are in cultivation. a few acres are found, good lobbolly fine, part of the vit. on the ligher parts, is logged over, the larger trees removed. the larger part is swamp which has no very large trees, but shows my night of recent logging. he swamp probably occupies at linit half The arrange, to want \$ 18 006 for everything but The house.

1962 Maryland Worcester Co. 106 Pelisten midten Just outside Polismohe State Forest Dec. 9 spreading by underground Lycopodium obscurum theymer, common very locally in Pinus taeda forest on low sandy soil.

1963 Vinginia Taipax 6.109

Jan. 1 Sleepry Hollow,

s. of Falls Church

Fruits (empty heads) of
figuidambar have galler
in some quantity on the
snow. Considerable wind
last night. many still
on trees.

Jan. 6 fleepy Hollows many liquidambar fruit, still on trees. (3 photos). 1. Silver

, 400 Erica cinerca

401 moss Rhaesmitium langinssum

402 Betula alba var dominant

403 Betula albavar.

a considerable area on the sandstone terrace, normally covered by vinus sylvestris, has a frue stand of Betulain the tree layer, 4-4 m tall. 1-3 m. apart, so young that no trace of black roughness at to has appeared at base, a showh layer 0.5 - 1 m. talf of Callung, with much bare with mores. Ire couts the works and small pools are foren In places of teridium replaces the Callina.

show 0.7 m. tall. dway show 2-3 dm tall

small tree is m. Tall with white back, dark sears.

mall tree 6 m. tall with white back, dark sears.

In the pine frest around this is much tracken. Karger Retulas here mostle show black funous at base. In the decidnous frest some is pure Fagus, some fague and querus. home areas have a confirmons tall should layer of these agnifolia. hlange highway is cutting a terrible great the freeting dept is said to have made a deal giving this up and buying fred in west of France fan. vir - Road from Fontainebleau to Only over almost the whole distance the trees are white with rec(in very solid and thich frost), and grand has thin powdery mow, but no ice on highway. The is is, not thick enough to beach dranches from these.

Only to fonder solid forgtop level, with patterns on top, including a great archate sharp line enver north. Over England widely scattered wine, little know, a bumpe protunding from top of frag larger. Open patcher showing many country and, escarp melit, it,

pearing frost crystals

eagle socie, forming a cylinder

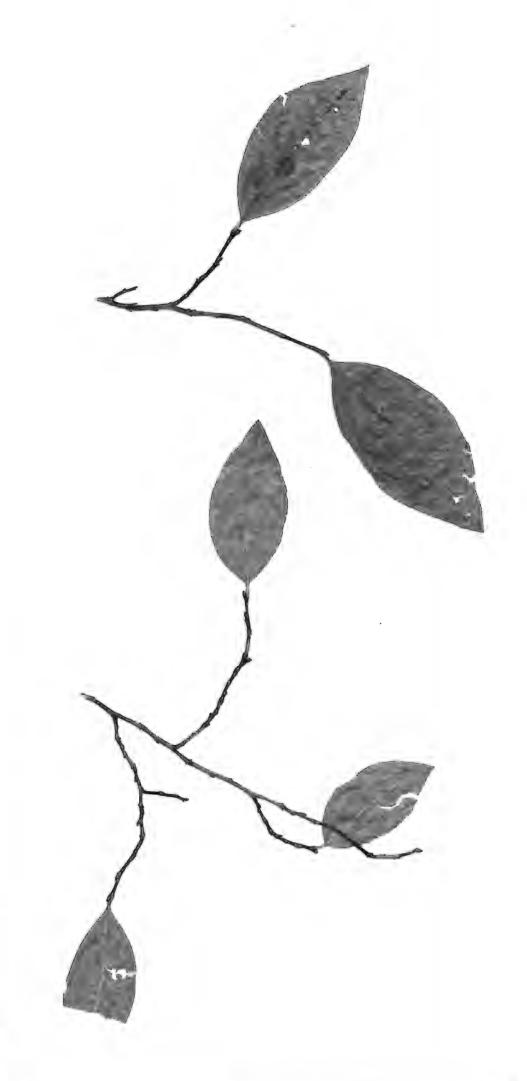
3-80 mm. long, 1-2 mm. thich

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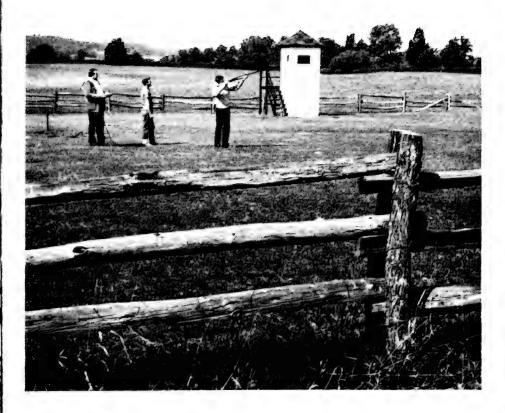


ROVIDING an opportunity to return to our outdoor heritage is the purpose of Raven's Hollow near Warrenton, Virginia. Raven's Hollow, one hour from Washington, is a place where a man and his son can rediscover the pleasures of the outdoors.

Raven's Hollow is dedicated to conservation, physical fitness, wildlife and to the relationship between father and son.

It is a place for those who are dedicated to maintaining a refuge for thought and participation in the pleasures of the outdoors can gather.

Raven's Hollow was formed by persons who are vitally interested in the exchange of ideas and in the conservation of our American Heritage. It is a meeting place for those having these interests and those who have dedicated personal resources to the advancement of the Airlie Foundation.



Facilities

- Hunting in a six hundred acre game preserve
- Skeet
- Golf
- Riding
- Hiking
- Tennis

- Overnight accommodations
- Excellent Food
- A rustic shooting lodge
- Films
- Lectures
- Lake swimming, fishing and boating

Location

Raven's Hollow is located on Airlie Farm, four miles west of Warrenton, Virginia.

Information

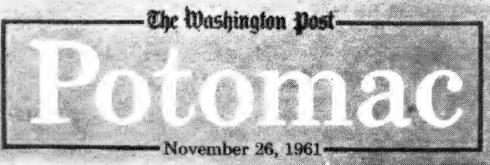
For information write Raven's Hollow, Warrenton, Virginia or Call Warrenton 347-1300, area Code 703.



Warrenton Estate Becomes a Think Center

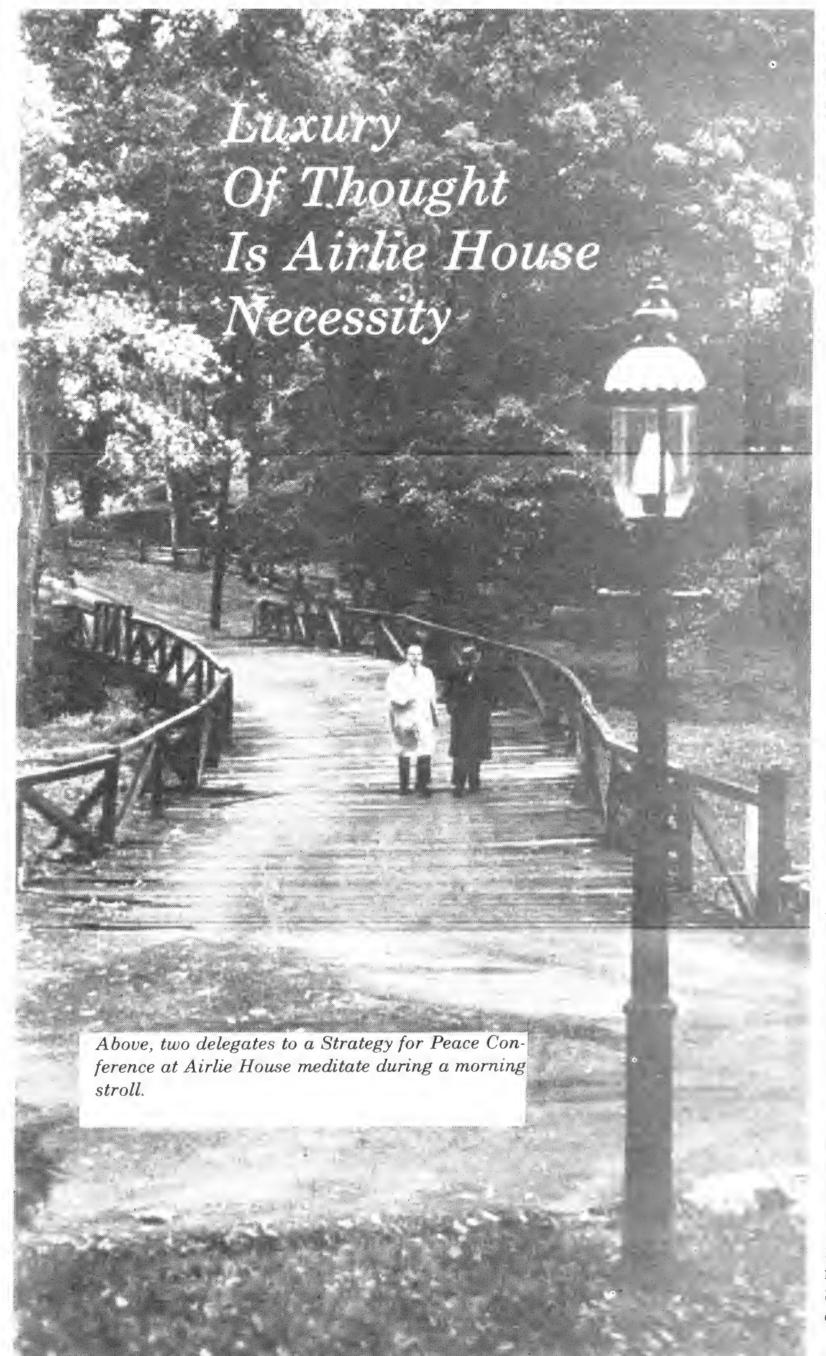
For The Thinking Man

AIRLIE House, the big, graceful think center near Warrenton, Va., has a serene pace that won't appeal to the average convention-goer. Nevertheless, its popularity is increasing, perhaps proving as its founders believe, that shops, bars, theaters and other convention city attractions have a serious competitor in tranquility.





Lester Van Atta, Hughes Research; Albert E. Burke, TV news analyst; and Maurice Albertson, Colorado State U.



Serenity and Service for Thought

HE NATION'S CAPITAL, with its high concentrations of brain power, now has its own Think House, centered in a mountain-locked island of rural retreat outside Warrenton, Va.

There, isolated in 1200 acres of rolling pastureland, is a new conference center designed to provide the atmosphere for clear thinking. It is called Airlie House, itself the brainchild of the Nation's only dentist-physician-lawyer, Dr. Murdock Head.

Modeled in purpose after New York's famed Arden House, it is no plush, rococo retreat. The facility is an assembly of Georgian manor houses, lodges and guest accommodations, redesigned to modern comforts, such as air conditioning and wall-to-wall carpeting. It is a working conference center away from the distractions of busy offices or ordinary convention assemblies.

At Airlie House someday, some of the world's thorniest problems may be challenged for the "best interests of the public"—the founding phrase which sets it above and apart from swank, commercially operated resort hotels.

It has its horse country recreations—riding, hunting, fishing, hiking, tennis and skeet shooting. But primarily its chief attractions are solitude, service and serenity for thinking men and women concerned with the public's problems.

Here big wheels and little cogs can be brought together. Participants talk, and listen to each other, and ponder. They agree and they disagree, and they carry their impressions, their sometimes changed and sometimes reinforced ideas back home with them. It's something like oldtime town meetings, or discussions around the pot-bellied stove in the country store, revived and modernized.

Such isolation and total submergence in the subject matter can spell the difference between an effective conference and an ineffective junket.

Airlie House, named for a Scottish Lord, is operated by Airlie Foundation, a nonprofit organization chartered by the Commonwealth of Virginia. Its proximity to Washington makes it readily available to Congress, government agencies, research and educational centers and industry without the problems of excessive expense or travel time loss.

Its rates vary with the type of conference, the number of participants, and the services required. In general, they have ranged from \$20 to \$25 a day for each participant, a charge comparable to convention headquarters hotels in major metropolitan areas of the United States.

One recent conference at Airlie House attracted more than 100 leaders of industry, education, armed forces and the government. This was the third annual Strategy for Peace Conference, whose previous conclaves were at Arden House.

The conferees discussed such things as the interrelationships of military strategy, technology and arms control; disarmament and military stockpile inspections and control; the economic aspects of disarmament; changing emphases in the United Nations, and the economic and social development of emerging nations. Previously, Airlie House had accommodated sessions of the American Religious Heritage Society.

Conference subjects may be as broad as the world has problems. Any group with a serious problem of public interest to discuss is eligible to stage a gathering at Airlie House.

The organizations which sponsor conferences there pay the costs. Some pass these costs on to the participants; some bear part of the costs out of their treasuries. The founders of Airlie House are seeking funds to sponsor or help sponsor worthy conferences which may never otherwise be held for lack of leadership and funds.

The food is good, and ample, and usually served cafeteria or buffet style. Millionaires may be used to higher luxuries and services than can be made available at present charges, but unless such demands become important, the facility will continue on its present course, says Dr. Head.

Dr. Head is the three-letter man of the professions. He earned a dental degree, and when he found that barred him from certain surgeries, he entered medical school and won his M.D. Then he found that dentists and physicians needed legal help, so he studied law and won a degree in that profession.

Now chairman of the Institute of Forensic Medicine at George Washington University, he is content that his brainchild, Airlie House, is here to stay. The money he and his influential friends raised to set it up and get it going, he said, is a good investment for the Nation.

He's going to develop other interests, like medical research in the special clinic on the Airlie Farms estates, and television programming and the making of documentary films.

By Nate Haseltine







Gen. J. Lawton Collins (USA, ret.) and the Rev. E. A. Conway, Director, Creighton University Center for Peace Research, discuss important point.







surroundings such as this room being shown to Mrs. John Marvin by John Bordelon, administrator of Airlie House foundation.

nOpenSpaces Chapman ennedv lanners William Staff Rep

President Kennedy's official recognition of the need or preserving open spaces in the Washington area ould not have come at a more opportune moment in he view of suburban planners in Maryland and Virginia.

chool," says

Fairfax planners Wednes-datay released their version of a victoridor plan applied to local conditions and next week will will open spaces.

In suburban Maryland, the appropried to add emphasis to a proposed general plan incorporating the corridor concept. Public hearings on it will be operated in January.

Planners in Fairfax and on planners in Fairfax and on pharyland-National Capital plans and Planning Commission are offering similar methes of the open spaces of the open.

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themselves in Bill and

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children also e frank about ey "feel more evealing their ts, even when are antago-

Their programs include purchasing of parklands, zoning to
the for low-density development, tax policies which encourage to
farming and the acquisition of easements. Here is what they foresee in each category:

Purchase — With cnormous manages of open spaces can do only a small part of the job. In chase of open spaces can do only a small part of the job. In This is particularly true now 2st when the traditional source of a sparkland money, the Capper- as when the Urban Renewal for Sist from the Urban Renewal for Sist from large tracts in the tradification, suburban Land to Sist from large tracts in the tradification of the source of a sist from large tracts in the tradification of the source of a sist from large tracts in the tradification of the source of a sist from large tracts in the tradification of the source of a sist in the tradification of the source of a sist is hoped by that 4000 acres can be ac- by that the sources can be ac- by

It came at a time when quired under the present procomprehensive plans for sav. gram and that more Federal woodlands are being present gram and that more Federal woodlands are being present gram and that more Federal woodlands are being present gram and that more Federal ing suburban counties on both the program. Fairfax County will be nade available sides of the Potomac.

In a statement Tuesday sup, with the remainder of a 4-porting the corridor concept million-dollar bond issue.

of developing the National Capital Medical to preserve for the benefit of time. Montgomery County has the executive branch to seek forming development for some to preserve for the benefit of time. Montgomery County has the National Capital Region rejected five-are zoning as strategic open spaces, includ- to extreme but it has made ing existing park, woodland two-acre zoning stick in many and scenic resources."

These open spaces, includ- to extreme but it has made separate the extended zones of the procuntry areas. The Prince Senial to the corridor development poses the corresponding to the corridor development poses the country side.

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Fairfax County bressen they would separate the extended zones of the hazard development poses the County. The new open spaces biggest problem for the cor.

Fairfax Dennely and materially.

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But on both sides of the Porestrial agricultural propose when he did," said Fairfax Mayland's proferential tax county agricultural propose the control when he did," said Fairfax Mayland's propose the proposed proposed."

Fayne. Thank heavens he came our triandy propose agricultural propose the control when he did," said Fairfax Mayland's proposed spaces out it is c

Taxes—To help farmers
who want to resist the preswho want to resist the pressure of fast-rising land values,
Maryland's preferential tax
law offers low assessments on
f agricultural properties.
Changes will be proposed in
the General Assembly to prevent speculators and land
developers from taking ada vantage of the tax privilege.
Fairfax County planners
with built-in protection
against speculators.

Easements — The Virginia
and Maryland planners will
encourage the purchase of
conservation and scenic easements of strategically-placed
open spaces. The land-owner
will be paid for keeping his
property undeveloped as long
as the easements are in force.
In effect, the public buys a
stake in the land for the difstake in the land for the restricvith and without the restrictive easement.
In all three suburban comm

tive easement.

In all three suburban counties, the planners want to move fast because several presently planned developments would conflict seriously with the corridor plan.

In Prince Georges, DISC, Inc., is seeking zoning for a 2500-acre tract in the Largo area where planners envisage a wide expanse of open spaces.

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